

920476-95824

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

In the application of : Naden, James et al.
Serial No. : 10/814,897
Filed : March 31, 2004
For : Multi-hop Load Balancing
Examiner : Wendell, Andrew
Art Unit : 2618
Customer number : 23644

REPLY BRIEF IN RESPONSE TO EXAMINER'S ANSWER
MAILED FEBRUARY 22, 2007

Honorable Director of Patents and Trademarks
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir,

Responsive to the Examiner's Answer mailed February 22, 2007, appellants make the following observations.

REPLY BRIEF

Appellants' submissions made in the Appeal Brief of November 9, 2006, remain entirely pertinent to the issues addressed therein.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference", *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Appellants maintain that Fette fails to anticipate any of the independent claims 1, 20, 21, 22, 23, 39 and 40.

Appellants strongly deny Examiner's allegations that "appellant is reading more into their claims than is present" and "appellant's claim does not mention how the resources are related to the first beam". Lines 2-4 of claim 1 clearly state "each base station defining a plurality of beams which each have an amount of resources for supporting communication links with terminals located in the beams". Other independent claims contain the same, or similar, wording. This relates directly to the purpose of the invention being to share load between overloaded beams of a base station, as outlined in the "Summary of Invention" section of the Appeal Brief.

When the "first beam" is referred to later in claim 1, as part of the feature of "the control entity is arranged to determine if a direct communication link can be supported between a new terminal and a base station using a first beam", it is implicit that the resources of the first beam are used for this direct communication link. No other interpretation of the claim makes sense, particularly in view of the purpose of the invention being to share load between overloaded beams of a base station.

Appellants do not deny that the base node of Fette can use multiple beams. For example, the passage at col.3 lines 62-64 mentions their use for spatial diversity.

The pertinent issue is that Fette does not teach using first and second beams in the particular manner recited in claim 1. Examiner continues to read features into Fette that are not actually described in Fette, to support the rejection. Fette does not describe how an attempt is made to use a first beam – and the resources of the first beam - to provide a direct communication link with a terminal and, failing that, to use a second beam – and the resources of the second beam - to provide a first 'hop' of a multi-path link with the terminal.

Appellants understand that Fette has a set of time slots 48 and two frequency bands (75, 77, Fig.7) available for communication links. However, Fette does not teach how these resources are allocated to the beams formed by the antenna system. Fette certainly does not teach “each base station defining a plurality of beams which each have an amount of resources for supporting communication links with terminals located in the beams”, since the aforementioned passage at col.4 line 66 – col.5 line 13 describes allocating a number of slots 48 according to the type of communication link required (direct or indirect). The set of slots 48, and frequency bands 75, 77, in Fette are used as a common pool of resources. Each beam in Fette would not have “an amount of resources” as required by claim 1 of the present invention.

Even if it was held that Fette teaches use of a first beam for a direct communication link and use of a second beam for a communication link with a relaying equipment (which is denied), Fette fails to anticipate claim 1 for the reason stated above.

Examiner argues that “time slots 48 have nothing to do with the beam/link being the same because there are two different beams/links.” Appellants have explained above why this point is relevant to the issues.

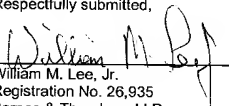
All of the comments made above in respect of claim 1 also apply to the other independent claims 20, 21, 22, 23, 39 and 40.

The applicants therefore urge reversal of the Examiner's rejection of claims 1 to 40, which are believed to define an invention which is both novel and non-obvious having regard to the prior art references relied on by the Examiner, taken alone or in combination.

An appropriate Petition for Extension of Time is also submitted herewith.

May 21, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line.

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